OBJECTIVES: A tailored accelerated physiotherapy (AP) program following Resurfacing Hip Arthroplasty (RHA) has been shown to be effective in improving hip function and range of motion in young male patients; however no evidence has been provided on its cost-effectiveness. The aim of this UK trial-based economic evaluation was to assess the cost-effectiveness of AP versus a standard rehabilitation protocol (SRP). **METHODS:** Trial participants were randomized post-RHA to AP or SRP. The experimental arm followed an 8-week programme with no hip precautions, full-weight bearing from day one, tailored exercises and an additional physiotherapy session. The control group received the standard 8-week course of rehabilitation. At 6, 16, and 52 weeks, patients reported primary and secondary health care contacts, use of equipment, and private health care contacts. These data were valued using 2012/2013 national average unit costs. The 3-level EuroQol EQ-5D questionnaire was completed by patients at baseline, 6, 16 and 52 weeks and used to calculate Quality Adjusted Life Years (QALYs) to 12 months. **RESULTS:** 80 young males (median age: 55.8 years) were randomized to AP (n=40) or SRP (n=40). Preliminary results showed mean (SE) health care costs to 52 weeks were £375 (£76) in the AP arm and £612 (£150) in the SRP arm (mean (95% CI) difference -£237 (-£582 to £108)). There were more visits to secondary care and primary care practitioners in the SRP arm. Mean (SE) QALYs were 0.84 (0.02) with AP and 0.72 (0.03) with SRP (mean (95% CI) difference 0.12 (0.04 to 0.21)). The probability that AP is cost-effective at a maximum willingness to pay of £20,000 per QALY is 99%. **CONCLUSIONS:** From the perspective of the health care provider, a tailored accelerated physiotherapy programme for younger male patients undergoing RHA appears cost-effective when compared to a standard rehabilitation programme.

PMS53
RITUXIMAB AS FIRST CHOICE FOR PATIENTS WITH REFRACTORY RHEUMATOID ARTHRITIS: COST-EFFECTIVENESS ANALYSIS IN IRAN BASED ON A SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: The aim of this study is evaluation of the effectiveness and cost-effectiveness of using rituximab as first line of treatment for patients with refractory rheumatoid arthritis in comparison to continuing conventional DMARDs, from a perspective of health service governors. **METHODS:** A systematic review was implemented through searching PubMed, Scopus and Cochrane Library. Quality assessment was performed by JADAD questionnaire. After meta-analysis of ACR (American College of Rheumatology) index results, QALY (Quality Adjusted Life Years) gained were calculated through mapping ACR index to HAQ (Health Assessment Questionnaire) and utility index. To measure the direct and indirect medical costs, a set of interviews with patients were applied. Thirty two patients were selected from three referral rheumatology clinics in Tehran with definite diagnosis of refractory rheumatoid arthritis one year before, and treatment regimen of either rituximab or DMARDs within last year. Incremental cost-effectiveness ratio were calculated for a period of six months for base case and generic rituximab scenario. Three fold of GDP (Gross Domestic Product) per capita was considered as threshold of cost-effectiveness. **RESULTS:** Four studies were eligible to be considered in this systematic review. Total risk difference of 0.3 for ACR20 criteria, 0.21 for ACR50 and 0.1 for ACR70 were resulted from meta-analysis. Also mean of total medical costs of patients for 24 weeks were $3985 in rituximab group and $932 for DMARDs group in the base case analysis. Thus, the incremental cost per QALY ratio will be $45900 to $70223 in the base case, and $32386 to $49550 for generic scenario, while the threshold of cost-effectiveness was $21684. **CONCLUSIONS:** Rituximab cannot be considered as cost-effective for the treatment of patients with refractory rheumatoid arthritis in Iran.

PMS54
COST-UTILITY ANALYSIS OF CERTOLIZUMAB PEGOL PLUS METHOTREXATE FOR THE TREATMENT OF MODERATE-TO-SEVERE ACTIVE RHEUMATOID ARTHRITIS IN GREECE

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OBJECTIVES: To evaluate the cost-effectiveness of certolizumab pegol (CZP) as an add-on therapy to methotrexate (MTX) versus etanercept, adalimumab or golimumab in patients with moderate-to-severe active rheumatoid arthritis (RA) who did not respond adequately to conventional synthetic disease-modifying anti-rheumatic drugs (csDMARDs) including MTX in Greece. **METHODS:** A Markov model with a cycle length of 6 months was used to assess cost and health outcomes of CZP versus other TNF-α inhibitors recommended in Greece over a patient's lifetime. On the discontinuation of first-line treatment with CZP or comparator, patients were switched to a second anti-TNF agent, and after failing that, they moved on to a third biologic agent with another mode of action. A sequential use of csDMARDs was assigned after the last biologic therapy. Clinical data and utility values were extracted from published literature. The analysis was conducted from a third-party payer perspective in Greece. Costs related to drug acquisition, administration, monitoring and patient management were considered (2014). All results were presented as incremental cost-effectiveness ratios (ICERs) per quality-adjusted life year (QALY). Probabilistic sensitivity analysis (PSA) was performed to ascertain the robustness of the base-case findings. **RESULTS:** The base-case analysis indicated that compared with etanercept+MTX, CZP+MTX was cost-effective (ICER: €3,177/QALY), and versus adalimumab or golimumab, CZP was the dominant strategy (less costly and more effective). For all comparisons, CZP treatment resulted in greater improvements in life expectancy and QALYs. PSA indicated that at the willingness-to-pay threshold of €34,000 per QALY gained, CZP+MTX was associated with a 71.6%, 97.9% or 99.2% probability of being cost-effective versus etanercept, golimumab or adalimumab as combination therapies with MTX, respectively. **CONCLUSIONS:** This analysis shows that CZP+MTX seems to be a cost-effective alternative when compared to approved subcutaneous anti-TNFs for the management of RA in Greece.

PMS55
COST-EFFECTIVENESS ANALYSIS OF STRONTIUM RANELATE VERSUS ALENDRONATE FOR MANAGEMENT OF OSTEOPOROSIS AMONG POST-MENOPAUSAL WOMEN IN MALAYSIA USING A MARKOV MODELLING APPROACH

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OBJECTIVES: Osteoporotic fractures are common in older adults and are often associated with high morbidity and mortality. As the incidence increases with age, it is natural that osteoporotic fractures have become a major health problem worldwide. Increasing number of patients with osteoporotic fracture will have a serious economic impact on the patient themselves and the society. The objective of this study is to study the cost-effectiveness of strontium ranelate compared to alendronate for patients with post-menopausal osteoporotic fractures in Malaysia. **METHODS:** A Markov model was developed to project clinical and economic benefits of strontium in a hypothetical cohort of patients (N=1,000) over a 5-year time horizon. This study was conducted from a payer perspective. Model parameters including transition probabilities and costs of treating fracture at various sites were Malaysia-specific. Drug costs were obtained from a public teaching hospital in Kuala Lumpur. Utilities were derived from previous literatures and efficacy data were derived from two pivotal trials, i. e. SOTI and TROPOS trials. Outcomes were presented as cost per quality-adjusted life year (QALY) gained. A discount rate of 3% was applied. Both 1-way and multivariate probabilistic sensitivity analyses were undertaken to evaluate robustness of results. **RESULTS:** Compared to alendronate, strontium could prevent 328 wrist, 192 hip, 7 vertebra and 115 multiple fractures respectively over 5 years, which was translated into 27.9 QALYs gained. Using strontium can lead to cost reduction of MYR1,416,595 (USD442,685), MYR478,257 (USD149,455), MYR22,784 (USD7,120) and MYR61,883 (USD113,088) due to reduced episodes of fractures at wrist/hip/vertebra/multiple sites respectively. The total reduction of direct medical costs of MYR2,279,519 (USD712,349) was larger than the extra drug cost, hence making strontium a cost-saving therapy. **CONCLUSIONS:** It was shown that strontium appeared to be more cost-effective compared to alendronate and hence should be recommended in the public sector in Malaysia.

PMS56
MABTHERA® (RITUXIMAB) FOR THE TREATMENT OF SEVERE GRANULOMATOSIS WITH POLYANGIITIS (GPA) AND MICROSCOPIC POLYANGIITIS (MPA) – A COST-UTILITY MODEL FOR THE UNITED KINGDOM

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OBJECTIVES: To evaluate the cost-effectiveness of MabThera in patients with severe GPA and MPA in the United Kingdom (UK). **BACKGROUND:** In March 2014 NICE issued positive guidance for the use of MabThera in patients with severe GPA and MPA [TA 308]. **METHODS:** An economic model was developed to reflect the health care system and the current treatment pathway in the UK. The cost-effectiveness analysis employs a Markov model with four health states: complete remission, non- remission, uncontrolled disease and death. Patients were assumed to start in the non-remission health state, transitioning based on their response to treatment. Relapsing patients who have exhausted all available treatment options they are assumed to enter the uncontrolled disease health state where they remain until death. The efficacy data for the intervention and comparator arm were taken from the RAVE study (Stone et al 2010) which demonstrated that MabThera was non-inferior to cyclophosphamide (CYC). In a subgroup of patients who had received prior therapy, MabThera was superior to CYC. Benefits were expressed as QALYs. Costs were calculated from a National Health Service and Personal Social Services perspective. The analysis calculated incremental costs and benefits associated with the addition of MabThera to the treatment paradigm which was assumed to consist of CYC and azathioprine. For patients intolerant to CYC, MabThera was assumed to substitute for CYC. The RAVE trial reports health related quality of life using SF-36. The SF-36 scores were converted to EQ-5D in a post-hoc analysis using a published model [Ara and Brazier 2008]. **RESULTS:** Base case results estimated incremental costs of approximately £3,700 and incremental QALYs of 0.306. The incremental cost-effectiveness ratio (ICER) was £12,100 per QALY gained. **CONCLUSIONS:** The results of this analysis suggest that MabThera is a cost-effective treatment for severe GPA and MPA.

PMS57
WORK PRODUCTIVITY LOSS DUE TO RHEUMATOID ARTHTIRIS (RA), CROHN'S DISEASE (CD) AND PSORIASIS (PS) IN POLAND

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OBJECTIVES: To assess the indirect costs of RA, CD and Ps in an employed population in Poland. **METHODS:** Data on presenteeism and absenteeism related with analyzed diagnoses were collected in a cross-sectional study from patients of ambulatory specialist care around Poland (30 rheumatology, 30 dermatology and 29 gastroenterology centers). Lost productivity was measured with Work Productivity and Activity Impairment (WPAI) questionnaire and patients' disease activity was assessed on standardized, disease specific scales (DAS28, PASI, and CDAI). 328 (RA), 460 (Ps), 256 (CD) working patients were included in the analyses conducted separately for each diagnosis. Unit cost of lost productivity was estimated using 2012 GDP per worker per hour corrected for diminishing marginal productivity and added up to PLN 33.18. **RESULTS:** Mean age of M2W respondents was 36 for CD, 42 for Ps and 46 for RA patients (only patients in productive age – 18-60/65 were included in the study).